



Florida Department of Environmental Protection

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January 7, 2016

EPA Water Docket No. EPA-HQ-OW-2015-0753
Environmental Protection Agency
1200 Pennsylvania Ave. NW.
Washington, DC 20460

Attention Docket No. EPA-HQ-OW-2015-0753

Scientists from the Florida Department of Environmental Protection have reviewed the Draft Aquatic Life Ambient Water Quality Criteria for Cadmium - 2015. We appreciate the opportunity to review the draft criteria and supporting information, and respectfully submit the following comments and suggestions.

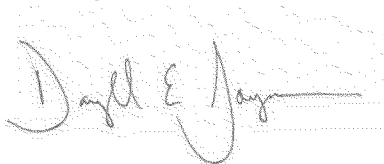
1. The general derivation of the proposed criteria appear to follow the same 1985 Guidelines (Stephan et al, 1985) generally used to develop criteria for toxic parameters and used in the derivation of the 2001 Cadmium (Cd) criteria with a few improvements.
2. The department supports the revision of the Cd criteria based on the addition of a significant amount of new toxicity data; however the department believes additional documentation is needed in the proposed criteria document to better support the selected or derived total to dissolved conversion factors.
3. The criteria were derived based on the total Cd concentrations reported from the toxicity tests, and the resulting CMC and CCC values were then converted to the dissolved form using conversion factors. However, very little information is provided concerning the derivation of the conversion factors, and more detailed information is needed to fully assess their appropriateness for natural waterbodies.
4. It appears that the conversion factors for freshwaters were based on the analysis of the total and dissolved Cd fractions in solutions prepared from Cd salts (similar

to those used in the toxicity tests). It is unknown if these solutions adequately represent the forms of Cd found in natural waterbodies. Even less information was provided regarding the derivation of the conversion factor for marine water other than indicating that it was derived experimentally by EPA.

5. An explanation should be added regarding why the conversion factors for the acute and chronic criteria are different. Also, it appears somewhat illogical that the constant conversion factor of 0.994 used for marine water is higher than for freshwater, especially since the hardness dependent conversion factor for freshwater decreases as hardness increases.
6. While it is discussed in the text and noted in some of the tables, it should be clarified in the documentation where the proposed criteria are presented that the recommended criteria values are expressed as dissolved Cd and not total. The document should also clarify whether states have the option to adopt the values for total Cd as total Cd criteria.

The Department appreciates the opportunity to review and provide comments on EPA's Draft Aquatic Life Ambient Water Quality Criteria for Cadmium - 2015. If you have any questions regarding our comments, please contact Ken Weaver (kenneth.weaver@dep.state.fl.us, 850-245-8414), or Garry Payne (grover.payne@dep.state.fl.us, 850-245-8423).

Sincerely,

A handwritten signature in dark ink, appearing to read "Daryll E. Joyner", is written over a light gray dotted line that serves as a signature guide.

Daryll Joyner, Administrator
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